

# Discussion

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*Jack Selody*

## **Freedman versus Laidler: The Importance of Money for Monetary Policy**

I agree with David Laidler when he writes that since 1982, the Bank of Canada has demonstrated convincingly that monetary policy can be conducted successfully without the monetary aggregates, but that monetary policy should not ignore money since one cannot appreciate fully how a monetary economy works without reference to money.

Of course, it should come as no surprise that I agree with Laidler, since he taught me macroeconomics some 27 years ago. It should also come as no surprise that I find Chuck's views equally defensible, since I have been working with him for the past 24 years.

As I do not find much to disagree with in Laidler's paper, what I would like to do in my discussion is highlight the differences between the views of Freedman and Laidler on money and its usefulness for monetary policy. In doing so, I shall provide some insight into what this debate has meant for those analysts at the Bank of Canada who look at the monetary aggregates when giving policy advice eight times a year. I shall end my discussion by suggesting a way forward for research into money that should help achieve what I think both Freedman and Laidler want, namely, a better understanding of the role that money plays in the monetary transmission mechanism.

## **Two Competing Views**

It seems to me that Freedman and Laidler draw different conclusions about the usefulness of money because they interpret the stylized facts associated

with money differently. This difference in perspective leads them to place more or less emphasis on the role of money in the transmission mechanism.

### **Passive versus active money**

Both Freedman and Laidler acknowledge that money responds endogenously to macroeconomic variables such as income and prices. Freedman interprets this endogeneity as money responding passively to “real” economic decisions. He argues that first people decide what to buy, and then they go to the bank to obtain the money necessary for the transaction. Laidler interprets this endogeneity as part of a process whereby money influences and is influenced by real economic variables. He argues that the availability (supply) of money influences how much people want to spend, and the action of their spending influences how much money others have to spend. In Laidler’s view, money is active in affecting real economic activity.

### **Unstable versus unpredictable money**

Both Freedman and Laidler acknowledge that money has what seems to be an unstable relationship with past fluctuations in prices, income, and interest rates. Freedman interprets this to mean that the demand for money is unstable and hence money is an unreliable indicator for monetary policy. Laidler interprets this to mean that because money is a buffer stock for all economic activity, it is too erratic to be predicted from past values of a small subset of macroeconomic variables, but this does not preclude the possibility that money can be used to predict future values of prices, income, and interest rates.

### **Interest rates versus the quantity of money in the transmission mechanism**

Both Freedman and Laidler acknowledge that movements in interest rates are correlated with the business cycle. Freedman interprets this to mean that, in normal times, interest rates are the only means by which monetary policy impulses get transmitted to the real economy. Laidler, on the other hand, believes that even in normal times interest rates are but one of a number of means by which monetary policy is transmitted. In his view, variations in the quantity of money constitute an important additional channel in the transmission mechanism.

## **The Value Added from the Debate**

Those of us at the Bank who do monetary policy analysis have benefited enormously from the debate between Freedman and Laidler because it has motivated us to delve deeper into questions concerning how the quantity of money influences economic behaviours. From this research came a greater appreciation of the transmission mechanism, and that helped us give better advice to policy-makers. We learned the following.

### **The transmission mechanism is complex**

Sometimes the transmission mechanism operates as if interest rates are the only financial variable that matters. Other times, money is too important to ignore. It would appear that none of the models we currently use for monetary policy analysis have parameters that are stable or robust enough to be used without the judgment of policy analysts. In my view, this instability stems from our lack of understanding of the financial behaviours that underpin the transmission mechanism. This debate taught us that much more research needs to be done to increase our understanding of the financial aspects of the transmission mechanism.

### **We need to look at all indicators**

Because the transmission mechanism is complex, no single set of indicators can be relied on to provide the information needed to make good monetary policy decisions in all circumstances. In other words, monetary policy analysts and policy-makers should always pay attention to all available economic indicators. They should also continually refine their interpretations of the movements in these indicators.

### **No single model of the transmission mechanism is adequate for monetary policy analysis**

No model has yet been built that captures all aspects of the transmission mechanism or conforms to all aspects of the relevant data. Thus, monetary policy analysts are obliged to use a multitude of models. This debate taught us that it is not always possible or desirable to reconcile the behaviours of the agents in different models. Analysts and policy-makers must accept that there will be inconsistencies between models although each model can and should be internally consistent.

## **Policy needs multiple paradigms that embody competing views of the transmission mechanism**

Our limited knowledge of the transmission mechanism means that we are uncertain about which economic model is the right one. One way to deal with this uncertainty, and in my opinion the best way, is to build, maintain, and use multiple models when formulating monetary policy advice. Each model should emphasize a different aspect of the transmission mechanism and offer a different perspective or paradigm of the economic and financial behaviours that underlie the transmission mechanism. The two perspectives that I think have the most to offer are the traditional perspective where frictions and nominal rigidities in markets for goods, real services, and factor inputs condition how the economy responds to a monetary policy impulse, and a financial perspective where the frictions and nominal rigidities are in financial markets and in the coordination of money-based transactions. In other words, Freedman and Laidler offer legitimate and useful alternative perspectives.

## **The Information Content of Money**

A key element of the debate between Freedman and Laidler revolves around the information content of money. Both Freedman and Laidler agree that if money is to be useful for monetary policy analysis then it must contain information about the future course of output and inflation. Thus, there has been much research at the Bank of Canada on determining whether or not money contains sufficient information about future output and inflation to be useful for policy analysis. Research at the Bank continues to focus on the following issues directly relevant to this question.

### **Too little or too much information**

It is fair to say that researchers at the Bank have had mixed success in extracting information about future output and inflation from money on a reliable basis. Freedman would argue that this is because there is not much information to extract, since fluctuations in money are dominated by financial innovations that swamp any economic information that money might contain. Laidler would argue that money contains too much information to be extracted by simple econometric time-series techniques, because, being a buffer, it reflects everything that happens in the economy. If Freedman is correct, we will never be successful at extracting information useful for policy from money. If Laidler is right, there is hope that new and improved econometric techniques will be able to use money to reliably predict future output and prices.

### **An indicator that needs to be explained?**

Freedman puts much emphasis on the need to explain why money is fluctuating. I think that there are two reasons for this. First is a belief that it is the “unexplained” component of money that matters for future output and inflation. Second, fluctuations in money may be related to financial innovation and therefore not related to the economic decisions that are a concern for monetary policy. Laidler is less concerned about why money fluctuates. In his view, it does not matter why money grows since any sustained growth in excess of output growth will eventually lead to inflation. Empirical work at the Bank has shifted from a concern with explaining why money is fluctuating to looking at how money can be used to predict output and inflation.

### **Episodic or continual information**

Freedman admits that sometimes it appears that fluctuations in money happen in advance of fluctuations in output and inflation. This would suggest that the information content of money is episodic, that is, dependent on the state of the economy. Laidler supposes that the effect of money on output and inflation is continual—excess money will always result in additional spending, since households and firms are always liquidity constrained in some sense. Economists at the Bank are increasingly taking the view that the effect of money on output and prices is episodic because of the difficulty in finding relationships between money and other macro-economic variables that are stable through time.

### **Reflecting economic or financial behaviour**

Some transactions in the economy involve the purchase or sale of a real good or service, while others involve the purchase or sale of a financial asset. Money is used in both types of transactions. Throughout the 1990s, it would appear that fluctuations in money were associated more with fluctuations in the volume of financial transactions than with the volume of real transactions. Thus, empirical research into money at the Bank is increasingly focusing on the link between money and other financial variables such as asset prices.

### **The Way Forward**

I think it is evident that the Freedman versus Laidler debate has been useful in challenging the ideas of monetary policy analysts at the Bank of Canada and in motivating them to look deeper into the behaviours that underlie the transmission mechanism. But where do we go from here?

### **More emphasis on financial behaviours in the transmission mechanism**

It is clear that much of the debate revolved around different interpretations of the financial behaviours that produce the stylized facts that define the transmission mechanism. Little is known about these behaviours, and what we do know is not well integrated into our models. I believe that future research should focus on understanding financial behaviours better and incorporating what we learn about these behaviours into our models in a rigorous way.

### **More research into why financial events sometimes affect real outcomes**

I think the evidence is clear that sometimes financial events affect real outcomes. In other words, money is not a veil. Sometimes money and other financial variables cause fluctuations in real economic variables. We need to better understand the nature of these connections and the preconditions necessary for money to matter. Having this information will improve our monetary policy advice.

### **Better models of money supply**

In all our models, the money supply process is not well articulated. The lack of structure around the process naturally leads us to view money as passive. To understand the role of money in the transmission mechanism we must incorporate the money supply process more explicitly into our models so that we can study the effects of this aspect of the transmission mechanism.

### **Theories of commercial bank behaviour and financial market behaviour**

Financial agents are missing from our models of the transmission mechanism. We cannot hope to completely understand the financial aspects of the transmission mechanism without including the behaviours of financial agents in our models. Without a better elaboration of their behaviours, our models of the transmission mechanism will be overly simplistic and we run the risk of misinterpreting fluctuations in economic or financial variables. This could have important implications for monetary policy